

re-transmitting the information signal with the first transmitter/receiver unit to a receiver located on the at least one passenger vehicle located on the pathway;

wherein the information signal is transmitted from the first transmitter/receiver unit to the receiver along the pathway.

2. (Amended) A method of providing information from at least one passenger vehicle located on a pathway and not within a signal coverage area of a destination, the method comprising steps of:

transmitting an information signal containing the information with a transmitter located on the at least one passenger vehicle on the pathway;

receiving the information signal with a first transmitter/receiver unit located on a passenger vehicle, located on the pathway, that is within the signal coverage area of the destination; and

re-transmitting the information signal with the first transmitter/receiver unit to a receiver located at the destination;

wherein the information signal is transmitted from the transmitter to the first transmitter/receiver unit along the pathway.

3. (Amended) The method as claimed in either one of claims 1 and 2, further comprising repeating the steps of receiving and re-transmitting the information signal along the pathway with an additional transmitter/receiver unit to provide the information signal between the first transmitter/receiver unit and the at least one passenger vehicle.

5. (Amended) The method as claimed in claim 3, wherein the additional transmitter/receiver unit is located on another passenger vehicle located on the pathway.

6. (Amended) The method as claimed in claim 5, wherein at least two of the passenger vehicles are located on the pathway and are travelling in the same direction.

7. (Amended) The method as claimed in claim 5, wherein at least two of the passenger vehicles are located on the pathway and are travelling in opposite directions.

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8. (Amended) The method as claimed in claim 3, wherein the additional transmitter/receiver unit is located on another passenger vehicle that is located on a parallel pathway.

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10. (Amended) The method as claimed in claim 3, wherein the additional transmitter/receiver unit is located on another passenger vehicle located on a second pathway that intersects the pathway.

12. (Amended) The method as claimed in claim 3, wherein the additional transmitter/receiver unit is located on another passenger vehicle that is not located on a pathway.

SUB E1  
13. (Amended) The method as claimed in claim 5, further comprising a step of monitoring the passenger vehicles and information signals along the pathway with a pathway station.

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14. (Amended) The method as claimed in claim 5, further including a step of providing the information signal to the at least one passenger vehicle located in an area where there is an insufficient number of available passenger vehicles to provide the information signal, with a supplemental communication system.

15. (Amended) A system that provides information to and from a second passenger vehicle which is in an area where signal coverage is otherwise not available from an information source, comprising:

- a transmitter unit, located at the information source, that transmits the information signal;
- a first transmitter/receiver unit located on a first passenger vehicle that is located on a pathway within a signal coverage area of the information source, that receives the information signal and that re-transmits the information signal;
- a directional antenna, coupled to the transmitter/receiver unit that re-transmits the information signal along the pathway; and
- a receiver, located on the second passenger vehicle that is located on the pathway, the receiver adapted to receive the information signal.

16. (Amended) The system as claimed in claim 15, wherein the first passenger vehicle is located on the pathway and in an area where there is an already existing communication channel.

17. (Amended) The system as claimed in claim 15, further including:

an additional transmitter/receiver unit located on another passenger vehicle, that receives and re-transmits the information signal to provide the information signal between the information source and the second passenger vehicle; and

wherein the additional transmitter/receiver unit includes an additional directional antenna that re-transmits the information signal along the pathway.

18. (Amended) The system as claimed in claim 17, wherein the passenger vehicles are ground vehicles.

19. (Amended) The system as claimed in claim 17, wherein the passenger vehicles are aircraft.

20. (Amended) The system as claimed in claim 17, wherein at least two of the passenger vehicles are travelling in the same direction along the pathway.

21. (Amended) The system as claimed in claim 17, wherein at least two of the passenger vehicles are travelling in opposite directions along the pathway.

22. (Amended) The system as claimed in claim 17, wherein at least two of the passenger vehicles located on parallel pathways.

24. (Amended) The system as claimed in claim 17, wherein the another passenger vehicle is located on a second pathway that intersects the pathway.

27. (Amended) The system as claimed in claim 17, wherein the another passenger vehicle is not located on a pathway.

28. (Amended) The system as claimed in claim 17, further comprising a supplemental communication network that communicates directly with the second passenger vehicle that is located in an area where there are insufficient other passenger vehicles available to provide the information signal to the second passenger vehicle.

29. (Amended) The system as claimed in claim 17, further comprising:  
at least one pathway station that monitors the passenger vehicles along the pathway; and  
a pathway control station, coupled to the pathway station and to an existing communications network, that controls communication between the pathway station and the existing communication network.

30. (Amended) A method of providing information to passenger vehicles, comprising steps of:  
transmitting an information signal containing the information from an information source to a first transmitter/receiver unit located on a first passenger vehicle located on a first predetermined pathway;  
receiving the information signal with the first transmitter/receiver unit;  
re-transmitting the information signal with the first transmitter/receiver unit;  
repeating the steps of receiving and re-transmitting the information signal with another transmitter/receiver unit located on a third passenger vehicle; and  
receiving the information signal with a receiver that is located on a second passenger vehicle located on a second predetermined pathway.

31. (Amended) The method as claimed in claim 30, wherein the first and second passenger vehicles are located on the first and second predetermined pathways, which are parallel pathways.

35. (Amended) The method as claimed in claim 30, wherein the first and second passenger vehicles are located on the first and second predetermined pathways, which are pathways that intersect.

Please add the following new claims:

40. (New) The method as claimed in claim 30, wherein the step of re-transmitting the information signal includes re-transmitting the information signal along the first predetermined pathway to the third passenger vehicle that is located on the first predetermined pathway.
41. (New) The method as claimed in claim 40, wherein the step of re-transmitting the information signal includes re-transmitting the information signal along the first predetermined pathway using a directional antenna coupled to the first transmitter/receiver unit.
42. (New) The method as claimed in claim 41, wherein the step of re-transmitting the information signal includes re-transmitting the information signal with a multibeam antenna in a plurality of directions, at least one of the plurality of directions being along the first predetermined pathway.
43. (New) The method as claimed in claim 40, further comprising a step of monitoring the passenger vehicles and information signals along the first predetermined pathway with a first pathway station.
44. (New) The method as claimed in claim 43, wherein the step of monitoring includes monitoring the passenger vehicles and information signals along the first predetermined pathway with a second pathway station, and assuming control of at least some of the passenger vehicles with the second pathway station to prevent overloading of the first pathway station.
45. (New) The method as claimed in claim 30, further comprising a step of providing the information in the information signal for access by a passenger associated with at least one of the passenger vehicles.
46. (New) The method as claimed in claim 30, further comprising a step of altering a heading of the second passenger vehicle based on information received by the receiver.

47. (New) The method as claimed in claim 30, wherein the steps of transmitting and re-transmitting the information signal include transmitting and re-transmitting a signal that is digitally encoded with the information.

48. (New) The method as claimed in claim 30, wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the step of re-transmitting the information signal with the another transmitter/receiver unit does not include re-transmitting the first portion of information.

49. (New) The method as claimed in claim 3, further comprising a step of providing the information in the information signal for access by a passenger associated with the at least one passenger vehicle.

50. (New) The method as claimed in claim 3, wherein the step of re-transmitting the information signal includes re-transmitting the information signal with a directional antenna coupled to the transmitter/receiver unit.

51. (New) The method as claimed in claim 50, wherein the step of re-transmitting the information signal includes re-transmitting the information signal with a multibeam antenna in a plurality of directions, at least one of the plurality of directions being along the pathway.

52. (New) The method as claimed in claim 3, wherein the steps of transmitting and re-transmitting the information signal include transmitting and re-transmitting a signal that is digitally encoded with the information.

53. (New) The method as claimed in claim 3, further comprising a step of altering a heading of the at least one passenger vehicle in response to information received by the receiver.

54. (New) The method as claimed in claim 5, further comprising a step of providing the information for access by a first passenger associated with the another passenger vehicle.

55. (New) The method as claimed in claim 54, further comprising a step of providing the information for access by a second passenger associated with the at least one passenger vehicle.

56. (New) The method as claimed in claim 55, wherein the information signal includes a first portion of information intended for the first passenger and a second portion of information intended for the second passenger, and wherein the step of re-transmitting the information signal with the additional transmitter/receiver unit does not include re-transmitting the first portion of information.

57. (New) The method as claimed in claim 13, wherein the step of monitoring the passenger vehicles and information signals along the pathway with a pathway station includes monitoring the passenger vehicles and information signals along the pathway with an additional pathway station; and assuming control of at least some of the passenger vehicles to prevent overloading of the pathway station.

58. (New) The system as claimed in claim 17, wherein the transmitter includes a directional antenna adapted to transmit the information signal along the pathway.

59. (New) The system as claimed in claim 17, wherein the second passenger vehicle and the another passenger vehicle each include an interface adapted to receive the information in the information signal and provide the information for access by a passenger associated with the second passenger vehicle and the another passenger vehicle, respectively.

60. (New) The system as claimed in claim 17, wherein the information is digitally encoded with the information.

61. (New) The system as claimed in claim 17, wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of

information intended for the second passenger vehicle, and wherein the information signal re-transmitted from the first passenger vehicle does not include the first portion of information.

62. (New) The system as claimed in claim 17, wherein at least one of the directional antenna and the additional directional antenna is a multibeam antenna that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway.

SUB E → 63. (New) The system as claimed in claim 18, wherein the information includes weather information.

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A9 64. (New) The system as claimed in claim 18, wherein the information includes traffic information.

65. (New) The system as claimed in claim 18, wherein the information includes information regarding at least one of a location and a heading of at least one of the passenger vehicles.

66. (New) The system as claimed in claim 18, wherein at least one of the passenger vehicles alters a heading in response to the information.

67. (New) The system as claimed in claim 29, further comprising an additional pathway station that assumes control of at least some of the passenger vehicles to prevent overloading of the pathway station.

68. (New) A system that provides information to and from passenger vehicles, the system comprising:

a transmitter, located at an information source, that transmits an information signal including the information;

a first transmitter/receiver unit located on a first passenger vehicle located on a first predetermined pathway, the first transmitter/receiver unit being adapted to receive and re-transmit the information signal;



a second transmitter/receiver unit located on a second passenger vehicle, the second transmitter/receiver unit being adapted to receive and re-transmit the information signal; and

a receiver that receives the information signal re-transmitted by the second transmitter/receiver unit, the receiver being located on a third passenger vehicle that is located on a second predetermined pathway.

69. (New) The system as claimed in claim 68, wherein the second predetermined pathway is the first predetermined pathway.

70. (New) The system as claimed in claim 68, wherein the first and second predetermined pathways are parallel pathways.

71. (New) The system as claimed in claim 68, wherein the second predetermined pathway intersects the first predetermined pathway.

72. (New) The system as claimed in claim 68, wherein the passenger vehicles are airplanes.

73. (New) The system as claimed in claim 72, wherein the first predetermined pathway is disposed above the second predetermined pathway.

74. (New) The system as claimed in claim 72, wherein the first predetermined pathway is disposed below the second predetermined pathway.

75. (New) The system as claimed in claim 68, wherein the passenger vehicles are ground vehicles.

76. (New) The system as claimed in claim 75, wherein the information includes traffic information.

77. (New) The system as claimed in claim 75, wherein the information includes weather information.

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78. (New) The system as claimed in claim 75, wherein the information includes at least one of a heading and a position of at least one of the passenger vehicles.

79. (New) The system as claimed in claim 75, further comprising a pathway station that monitors the passenger vehicles and information signals along the first and second predetermined pathways.

80. (New) The system as claimed in claim 79, further comprising an additional pathway station that monitors the passenger vehicles and information signals along the first and second predetermined pathways and assumes control of at least one of the passenger vehicles to prevent overloading of the pathway station.

81. (New) The system as claimed in claim 79, further comprising a pathway control station, coupled to the pathway station and to another communication network, that controls information transfer between the pathway station and the another communication network.

82. (New) The system as claimed in claim 68, wherein the passenger vehicles are marine vehicles.

83. (New) The system as claimed in claim 68, wherein the third passenger vehicle is located on the first predetermined pathway.

84. (New) The system as claimed in claim 68, wherein at least one of the first and second transmitter/receiver units includes a directional antenna that transmits the information signal along the first predetermined pathway to the receiver.

85. (New) The system as claimed in claim 68, wherein at least one of the passenger vehicles includes an interface adapted to provide the information in the information signal for access by a passenger associated with the passenger vehicle.

86. (New) The system as claimed in claim 68, wherein the transmitter includes a directional antenna that transmits the information signal along the first predetermined pathway.

87. (New) The system as claimed in claim 68, wherein the information includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the information signal re-transmitted by the first transmitter/receiver unit does not include the first portion of information.

88. (New) The system as claimed in claim 68, wherein the first passenger vehicle is an aircraft and the second passenger vehicle is a ground vehicle.

89. (New) The system as claimed in claim 88, wherein the first transmitter/receiver unit includes an omni-directional antenna that re-transmits the information signal to the receiver.

90. (New) A method for providing information from a source to a second passenger vehicle the method comprising steps of:

- transmitting an information signal that includes the information from the source;
- receiving the information signal with a first transmitter/receiver unit located on a first passenger vehicle;
- providing the information for access by a passenger associated with the first passenger vehicle;
- re-transmitting the information signal with the first transmitter/receiver unit;
- repeating the steps of receiving the information signal and re-transmitting the information signal with at least one additional transmitter/receiver unit to provide the information signal between the first transmitter/receiver unit and a receiver located on the second passenger vehicle;
- receiving the information signal with the receiver; and
- providing the information for access by a passenger associated with the second passenger vehicle.

91. (New) The method as claimed in claim 90, wherein the step of re-transmitting the information signal includes re-transmitting the information signal along a first pathway, the first and second passenger vehicles being located on the first pathway.

92. (New) The method as claimed in claim 91, wherein the step of transmitting the information signal includes transmitting the information signal with a directional antenna.

93. (New) The method as claimed in claim 91, wherein the step of re-transmitting the information signal includes re-transmitting the information signal with a multibeam antenna in a plurality of directions, at least one of the plurality of directions being along the pathway.

94. (New) The method as claimed in claim 90, wherein the first and second passenger vehicles are located on a pathway, and further comprising a step of monitoring the passenger vehicles and information signals along the pathway.

95. (New) The method as claimed in claim 90, wherein the at least one additional transmitter/receiver unit is located on a corresponding at least one additional passenger vehicle.

96. (New) The method as claimed in claim 90, further comprising a step of altering a heading of the second passenger vehicle based on the information.

97. (New) The method as claimed in claim 90, wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the step of re-transmitting the information signal with the first transmitter/receiver unit does not include re-transmitting the first portion of information.

98. (New) A communication system for providing information from a source to a second passenger vehicle, the communication system comprising:  
an information source that transmits an information signal that includes the information;

a first transmitter/receiver unit located on a first passenger vehicle, the first transmitter/receiver unit adapted to receive the information signal transmitted by the information source and to re-transmit the information signal;

a first passenger interface adapted to present the information for access by a passenger associated with the first passenger vehicle;

a receiver located on the second passenger vehicle, the receiver being adapted to receive the information signal;

a second passenger interface adapted to present the information for access by a passenger associated with the second passenger vehicle; and

at least one additional transmitter/receiver unit adapted to provide the information signal between the first transmitter/receiver unit and the receiver.

99. (New) The communication system as claimed in claim 98, wherein the at least one additional transmitter/receiver unit is located on a fixed platform.

100. (New) The communication system as claimed in claim 98, wherein the at least one additional transmitter/receiver unit is located on a third passenger vehicle.

101. (New) The communication system as claimed in claim 100, wherein the first and second passenger vehicles are located on a first pathway and are travelling in a same direction.

102. (New) The communication system as claimed in claim 100, wherein the information signal is digitally encoded with the information.

103. (New) The communication system as claimed in claim 100, wherein the information includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle; and wherein the information signal re-transmitted by the first transmitter/receiver unit does not include the first portion of information.

104. (New) The communication system as claimed in claim 100, wherein the first and second passenger vehicles are located on a first pathway and are travelling in opposite directions.

105. (New) The communication system as claimed in claim 100, wherein the first and second passenger vehicles are located on corresponding first and second predetermined pathways that intersect.

106. (New) The communication system as claimed in claim 100, wherein at least one of the passenger vehicles is not located on a pathway.

107. (New) The communication system as claimed in claim 100, wherein at least two of the passenger vehicles are located on a pathway and the information signal is transmitted along the pathway between the at least two passenger vehicles, and further comprising a pathway station that monitors the passenger vehicles and information signals transmitted along the pathway.

108. (New) The communication system as claimed in claim 107, further comprising an additional pathway station that assumes control of at least some of the passenger vehicles, to prevent overloading of the pathway station.

109. (New) The communication system as claimed in claim 100, further including a supplemental communication system that provides the information signal to the third passenger vehicle when located in an area where there is an insufficient number of available passenger vehicles to otherwise provide the information signal to the third passenger vehicle.

110. (New) The communication system as claimed in claim 100, wherein the first and third passenger vehicles are located on a pathway, and wherein the first transmitter/receiver unit includes a directional antenna that re-transmits the information signal along the pathway.

111. (New) The communication system as claimed in claim 110, wherein the directional antenna is a multibeam antenna that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway.

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112. (New) The communication system as claimed in claim 100, wherein the third passenger vehicle is located on a pathway.

113. (New) The communication system as claimed in claim 100, wherein the passenger vehicles are aircraft.

114. (New) The communication system as claimed in claim 113, wherein the aircraft are located on pathways disposed above and below one another.

115. (New) The communication system as claimed in claim 100, wherein the second passenger vehicle is a ground vehicle and the third passenger vehicle is an aircraft.

116. (New) The communication system as claimed in claim 115, wherein the at least one additional transmitter/receiver unit includes an omni-directional antenna that transmits the information signal to the receiver.

117. (New) The communication system as claimed in claim 100, wherein the passenger vehicles are ground vehicles.

118. (New) The communication system as claimed in claim 117, wherein the information includes weather information.

119. (New) The communication system as claimed in claim 117, wherein the information includes traffic information.

120. (New) The communication system as claimed in claim 117, wherein the information includes information regarding at least one of a heading and a position of at least one of the passenger vehicles.